

TERRI L. PATTON

Geologist
Environmental Science Division
Argonne National Laboratory

Education:

M.S. Northeastern Illinois University, Geology
B.S. Southern Illinois University, Geology

Professional Experience:

1994-Present Geologist (Principal Specialist)
 Environmental Science Division
 Argonne National Laboratory

Currently assesses impacts of federal actions on geologic, soil, and water resources with an emphasis on mineral and energy resources, paleontological resources, soil erosion potential, water use and quality, and the alteration of natural hydrologic systems. Individual assessments have examined the impacts of construction and operational activities associated with energy development (continental and offshore), energy conveyance (pipelines and electric transmission lines), waste disposal, fuel production, and nuclear power plant operations over a wide range of geologic settings (e.g., Arctic permafrost, glacial, alluvial, coastal, and volcanic) and hydrologic systems (rivers, lakes, and marine waters). Related evaluations include geologic hazards assessments (e.g., flooding and debris flows, seismic, volcanic, soil liquefaction potential, mass wasting, and land subsidence), mineral resource potential, and cumulative impacts. Cumulative impact assessments focus on the impacts of past, present, and reasonably foreseeable future actions on the full range of environmental systems.

As Assistant Project Manager, provides project support in areas such as preparing scopes of work, assigning and supervising tasks, organizing team meetings, tracking project accomplishments, preparing sponsor progress reports, arranging for contractor services, and coordinating the preparation and technical review of project documents. In this role, responsibilities also include serving as the daily point-of-contact for sponsor queries, attending sponsor meetings, and presenting project status and results to sponsors.

Summary of Previous Experience:

1989-1994 Geologist
 Environmental Assessment Division
 Argonne National Laboratory

Provided technical and management support for various types of assessments to characterize legacy contamination at federal facilities. Preliminary assessments focused on investigating the history of operations at DOE and DOD facilities to predict the nature and location of

Summary of Previous Experience (Cont'd):

contamination in soil, water, and biological media. This work was followed by field sampling investigations to characterize contamination and develop remediation plans. Projects were located in numerous geographic regions across the United States and one international location (the Antarctic).

1986-1988 Research Assistant
Environmental Research Division
Argonne National Laboratory

Conducted laboratory experiments to study the partitioning behavior of radionuclides in lake environments. Developed an analytical method for measuring tin fission products in sediments.

1986-1989 Teaching and Research Assistant
Department of Earth Sciences
Northeastern Illinois University, Chicago, Illinois

Taught several laboratory sections for undergraduate-level earth science courses and tutored students. Thesis research involved electron microprobe analyses on igneous rock samples (conducted at the University of Chicago) to establish mineral relationships and develop a petrogenetic model for an anorogenic plutonic complex near Wausau, Wisconsin. For a summer project, designed plans and supervised field work to protect the eroding shoreline along Lake Michigan for property owners in the northern suburbs of Chicago.

1983-1986 Laboratory Technician
Teledyne Isotopes Midwest Laboratory, Northbrook, Illinois

Performed laboratory analyses for radionuclides in soil, water, and biological media (e.g., milk) in support of environmental monitoring programs for nuclear power plants throughout the United States and Ukraine (Chernobyl). Supervised laboratory work and prepared written reports to sponsors.

Research Interests:

Hydrogeologic investigations
Soil erosion
Geologic hazards
Mineral resource assessment
Cumulative impacts assessment

Honors and Awards:

Pacesetter Award, Argonne National Laboratory, 2004 and 2011
Exceptional Performance Award, Argonne National Laboratory, 1998

Graduate Student Research Grant, Northeastern Illinois University, 1988-1989

Professional Affiliations:

Geological Society of America

National Ground Water Association

National Association of Environmental Professionals

Publications:

Author or co-author of 60+ journal, report, and conference publications and presentations.